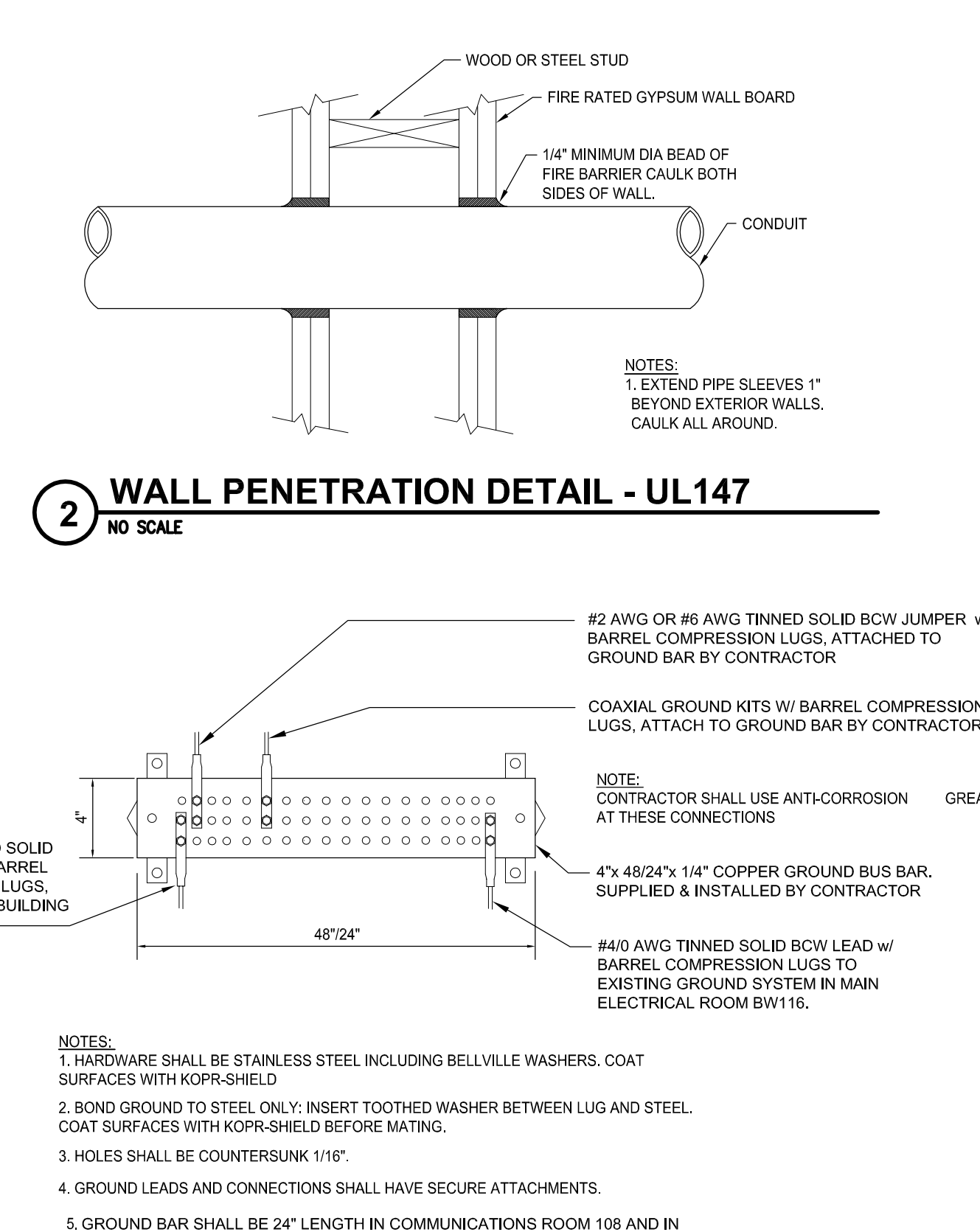
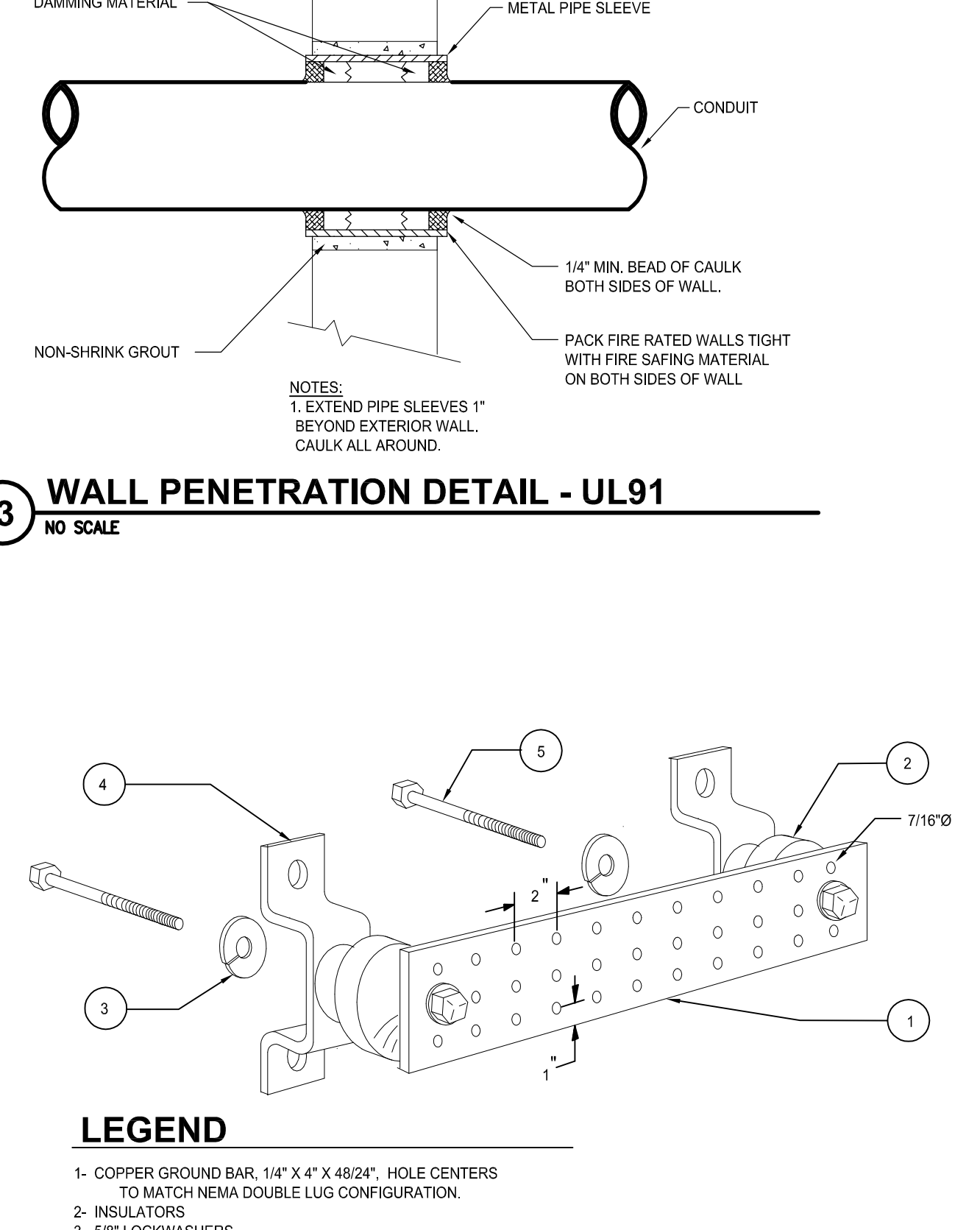


1 CONNECTION DIAGRAM - VOICE/DATA
NOT TO SCALE



2 WALL PENETRATION DETAIL - UL147
NO SCALE



3 WALL PENETRATION DETAIL - UL91
NO SCALE

MOTOR AND EQUIPMENT SCHEDULE														
PLAN MARK	DESIGNATION	LOAD	VOLTS	PHASE	CIRCUIT NUMBER	DISCONNECT DEVICE/ FUSE SIZE AT MOTOR LOCATION	WIRE SIZE	CONDUIT	DISC BY	MS BY	STARTER TYPE	BY	REMARKS	
1	AHLU-2-21	10 HP	480V	3	102H-2	30A/20A	3/4"12AWG + 1/4"12 AWG GND	3/4"	E	E	VFD	E	PROVIDE FIRE ALARM SYSTEM DUCT SMOKE DETECTOR IN RETURN DUCT	
10	UV-1	-	120V	1	101-2-3	20A/10A	2/4"12AWG + 1/4"12 AWG GND	3/4"	E	-	-	-	UL LIGHTS FOR AHU-2-1, DOOR INTERLOCK SWITCH BY MECHANICAL	
2	AHU-2-11	15 HP	480V	3	102H-2	30A/20A	3/4"10AWG + 1/4"10 AWG GND	3/4"	E	E	VFD	E	PROVIDE FIRE ALARM SYSTEM DUCT SMOKE DETECTOR IN RETURN DUCT	
20	UV-2	-	120V	1	101-2-5	20A/10A	2/4"12AWG + 1/4"12 AWG GND	3/4"	E	-	-	-	UL LIGHTS FOR AHU-2-1, DOOR INTERLOCK SWITCH BY MECHANICAL	
26	ACCU-1	46.2FLA	480V	3	102H-2	100A/70A	3/4"4AWG + 1/4"4 AWG GND	1"	M	M	-	M	BACKUP COOLING UNIT FOR AHU-2-1	
3	RF-1	3 HP	480V	3	102H-2	30A/20A	3/4"12AWG + 1/4"12 AWG GND	3/4"	E	E	VFD	E		
4	RF-2	3 HP	480V	3	102H-2	30A/20A	3/4"12AWG + 1/4"12 AWG GND	3/4"	E	E	VFD	E		
5	EF-1	3 HP	480V	3	102H-2	30A/20A	3/4"12AWG + 1/4"12 AWG GND	3/4"	E	E	HOA	E		
6	EF-2	1/6 HP	120V	1	201-2L-20	20A/5A	2/4"12AWG + 1/4"12 AWG GND	3/4"	E	E	MS	E		
7	EF-3	1/2 HP	480V	3	102H-2	30A/20A	3/4"12AWG + 1/4"12 AWG GND	3/4"	E	E	MS	E		
8	HWP-1	3 HP	480V	3	102H-2	30A/20A	3/4"12AWG + 1/4"12 AWG GND	3/4"	E	E	VFD	E		
9	HWP-2	3 HP	480V	3	102H-2	30A/20A	3/4"12AWG + 1/4"12 AWG GND	3/4"	E	E	VFD	E		
10	GP-1	1/2 HP	480V	3	102H-2	30A/20A	3/4"12AWG + 1/4"12 AWG GND	3/4"	E	E	-	E		
11	GP-2	1/2 HP	480V	3	102H-2	30A/20A	3/4"12AWG + 1/4"12 AWG GND	3/4"	E	E	-	E		
12	UH-1	2.1 MCA	120V	1	C101-2-28	20A/5A	2/4"12AWG + 1/4"12 AWG GND	3/4"	E	M	-	M		
13	UH-2	2.6 MCA	120V	1	C101-2-30	20A/5A	2/4"12AWG + 1/4"12 AWG GND	3/4"	E	M	-	M		
14	H-1	3.0 FLA	120V	1	C101-2-11	20A/5A	2/4"12AWG + 1/4"12 AWG GND	3/4"	E	M	-	M		
15	CUH-1	FHP	120V	1	C101-2-20	-	2/4"12AWG + 1/4"12 AWG GND	3/4"	M	M	-	M		
16	CUH-2	FHP	120V	1	C101-2-22	-	2/4"12AWG + 1/4"12 AWG GND	3/4"	M	M	-	M		
17	UH-3	FHP	120V	1	C101-2-24	20A/5A	2/4"12AWG + 1/4"12 AWG GND	3/4"	E	M	-	M		
18	UH-4	FHP	120V	1	C101-2-24	20A/5A	2/4"12AWG + 1/4"12 AWG GND	3/4"	E	M	-	M		
19	UH-5	FHP	120V	1	C101-2-26	20A/5A	2/4"12AWG + 1/4"12 AWG GND	3/4"	E	M	-	M		
20	UH-6	FHP	120V	1	C101-2-26	20A/5A	2/4"12AWG + 1/4"12 AWG GND	3/4"	E	M	-	M		
21	ELEV. CAB LIGHTING	-	120V	1	L101-2-1	20A/5A	2/4"12AWG + 1/4"12 AWG GND	3/4"	E	E	MS	E		
22	ELEVATOR	40 HP	480V	3	US2A	80A CB	3/4"2AWG + 1/4"4 AWG GND	1 1/4"	E	G	-	INT		
23	BCU-1	1 HP	480V	3	102H-2	30A/20A	3/4"12AWG + 1/4"12 AWG GND	3/4"	E	E	HOA	E		
24	GF-1	1/3 HP	120V	1	101-2-13	20A/10A	2/4"12AWG + 1/4"12 AWG GND	3/4"	E	E	MS	E		
25	SP-1	1/2 HP	120V	1	C101-2-32	20A/15A	2/4"12AWG + 1/4"12 AWG GND	3/4"	E	M	F	M	WITH ALARM CONTROL PANEL (BY MECHANICAL)	
26	EW-1	90W	480V	3	US2A	200A/140A	3/4"2AWG + 1/4"4 AWG GND	2"	E	-	-	-	1 ELEMENT - 18,000V EACH	
27	HWCP-1	1/2 HP	120V	1	101-2-7	30A/25A	2/4"10AWG + 1/4"12 AWG GND	3/4"	E	E	VFD	E	WINE WATER HEATER RECIRC PUMP	
28	HWCP-2	FHP	120V	1	101-2-9	20A/2A	2/4"12AWG + 1/4"12 AWG GND	3/4"	E	E	VFD	E	WINE WING VALVE CIRCULATOR	

MOTOR & EQUIPMENT SCHEDULE NOTES

1. LOAD: A = AMPERES; FHP = FRACTIONAL HORSEPOWER; HP = HORSEPOWER; KW = KILOWATTS; W = WATTS.

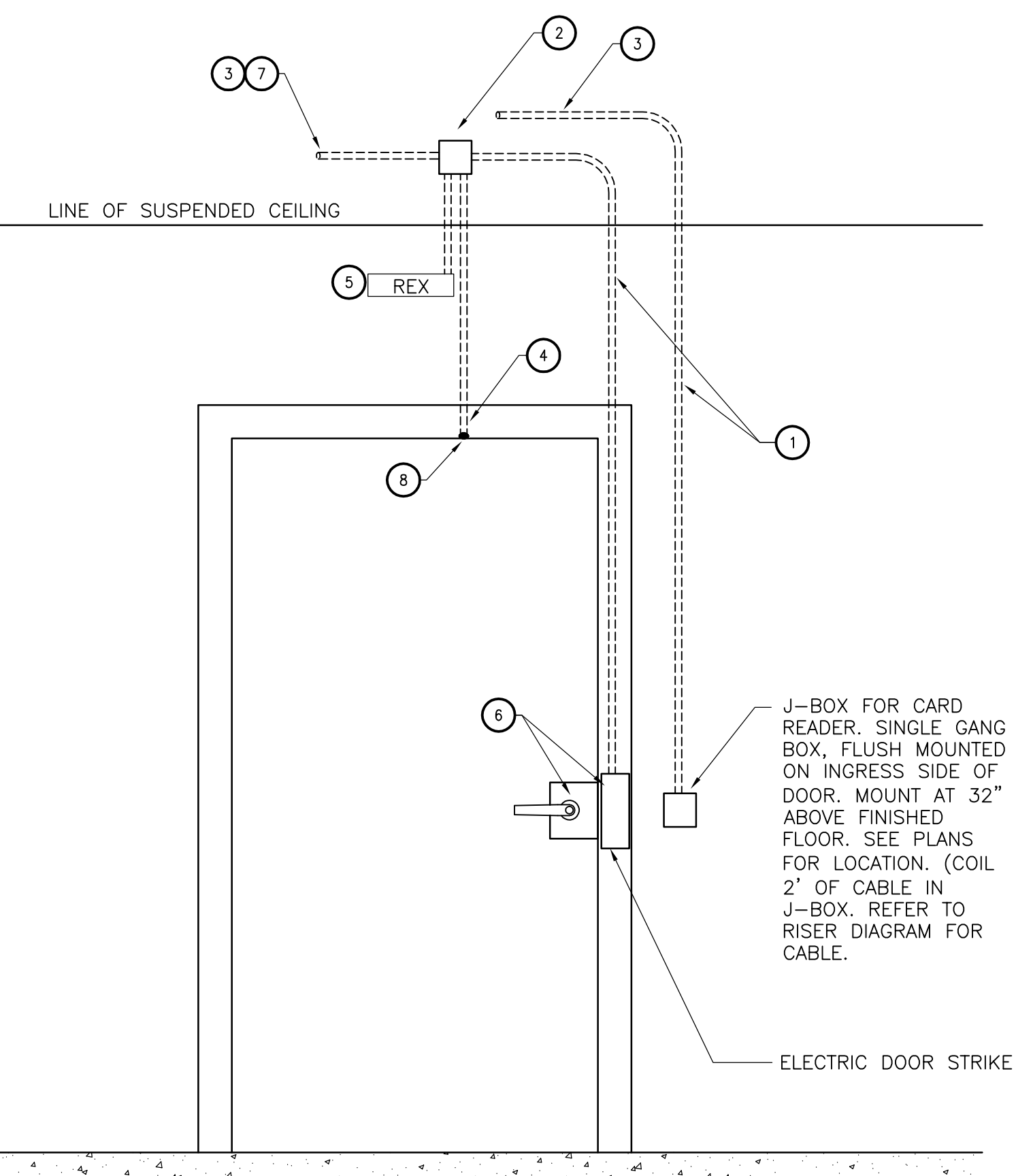
2. OVERCURRENT PROTECTION: 3P-40 = 3 POLE, 40 AMPERE CIRCUIT BREAKER; BOAF = 60 AMPERE FUSE).

3. RESPONSIBILITY: E = ELECTRICAL CONTRACTOR; EX = EXISTING; G = GENERAL CONTRACTOR; INT = INTEGRAL WITH EQUIPMENT; M = MECHANICAL CONTRACTOR; O = OWNER. FURNISH AND INSTALL: XF = INDICATES FURNISHED BY X AND Y INDICATES INSTALLED BY Y. (EXAMPLE: MFEI = MECHANICAL CONTRACTOR TO FURNISH AND ELECTRICAL CONTRACTOR TO INSTALL). SINGLE RESPONSIBILITY INDICATES BOTH FURNISH AND INSTALL.

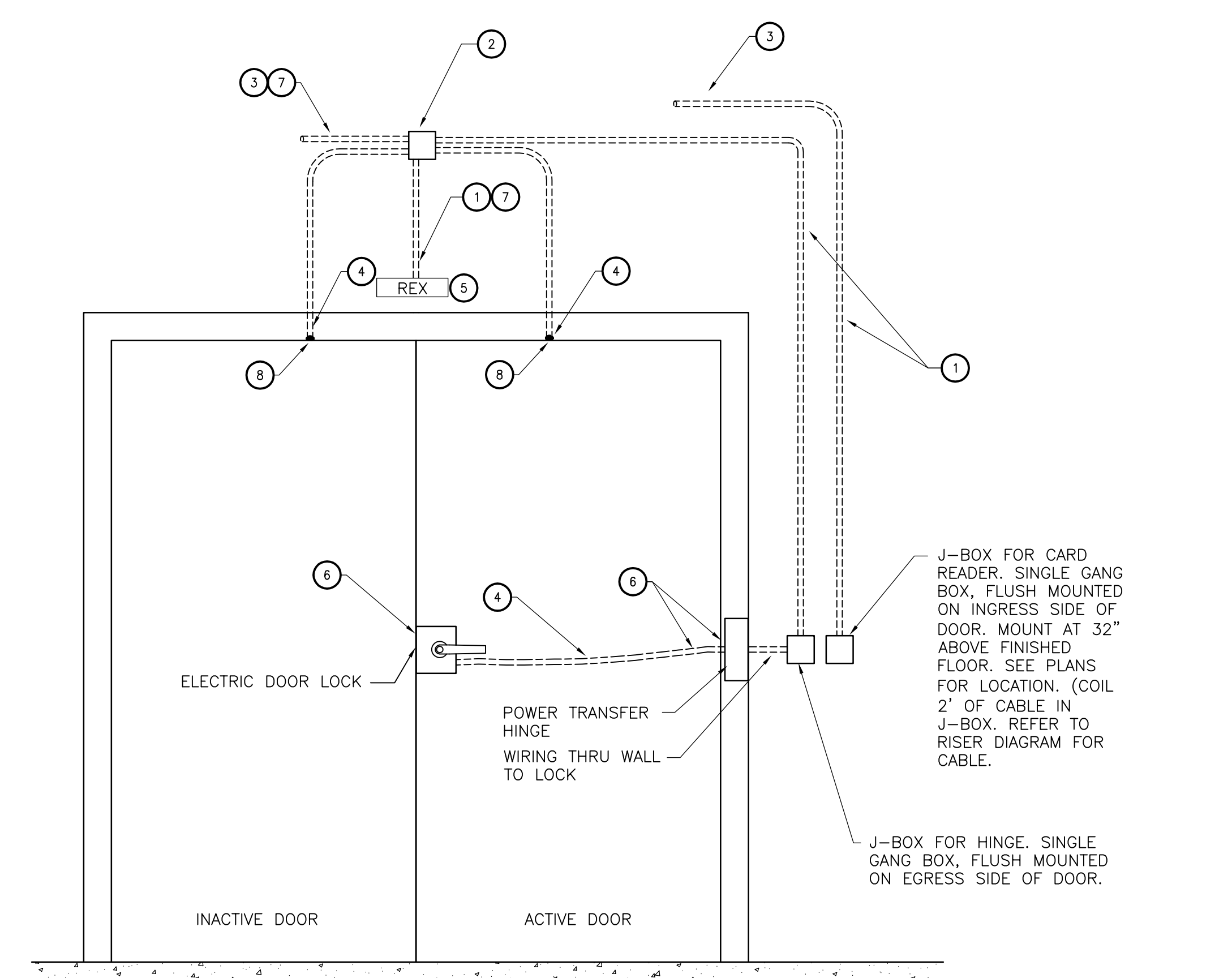
4. CONTROLS: A = ADJUSTABLE; ATOP = AUTOMATIC TEMPERATURE CONTROL PANEL; C/P = COORD AND PLUG; F = FLOAT SWITCH; FACP = FIRE ALARM CONTROL PANEL; H = HUMIDISTAT; MAN = MANUAL; MS = AUXILIARY CONTACT ON MOTOR STARTER; PBS = PUSHBUTTON STATION; PS = PRESSURE SWITCH; STP = MANUAL MOTOR STARTER WITH THERMAL PROTECTION AND PILOT LIGHT; SML = SWITCH WITH LIGHTING; T = THERMOSTAT; H.O.A. = MAGNETIC STARTER WITH HANDS-OFF-AUTO; TS = TWO SPEED STARTER W/ HANDS-OFF-AUTO; VFD = VARIABLE FREQUENCY DRIVE WITH BYPASS AND HOA.

5. MINIMUM WIRE SIZE SHALL BE NO. 12 AWG AND MINIMUM RACEWAY SHALL BE 3/4". MINIMUM SHALL APPLY WHERE SUCH IS OMITTED ON SCHEDULE.

6. INCLUDE A SEPARATE, GREEN, GROUNDING CONDUCTOR IN ALL FEEDER AND BRANCH CIRCUIT CONDUIT.



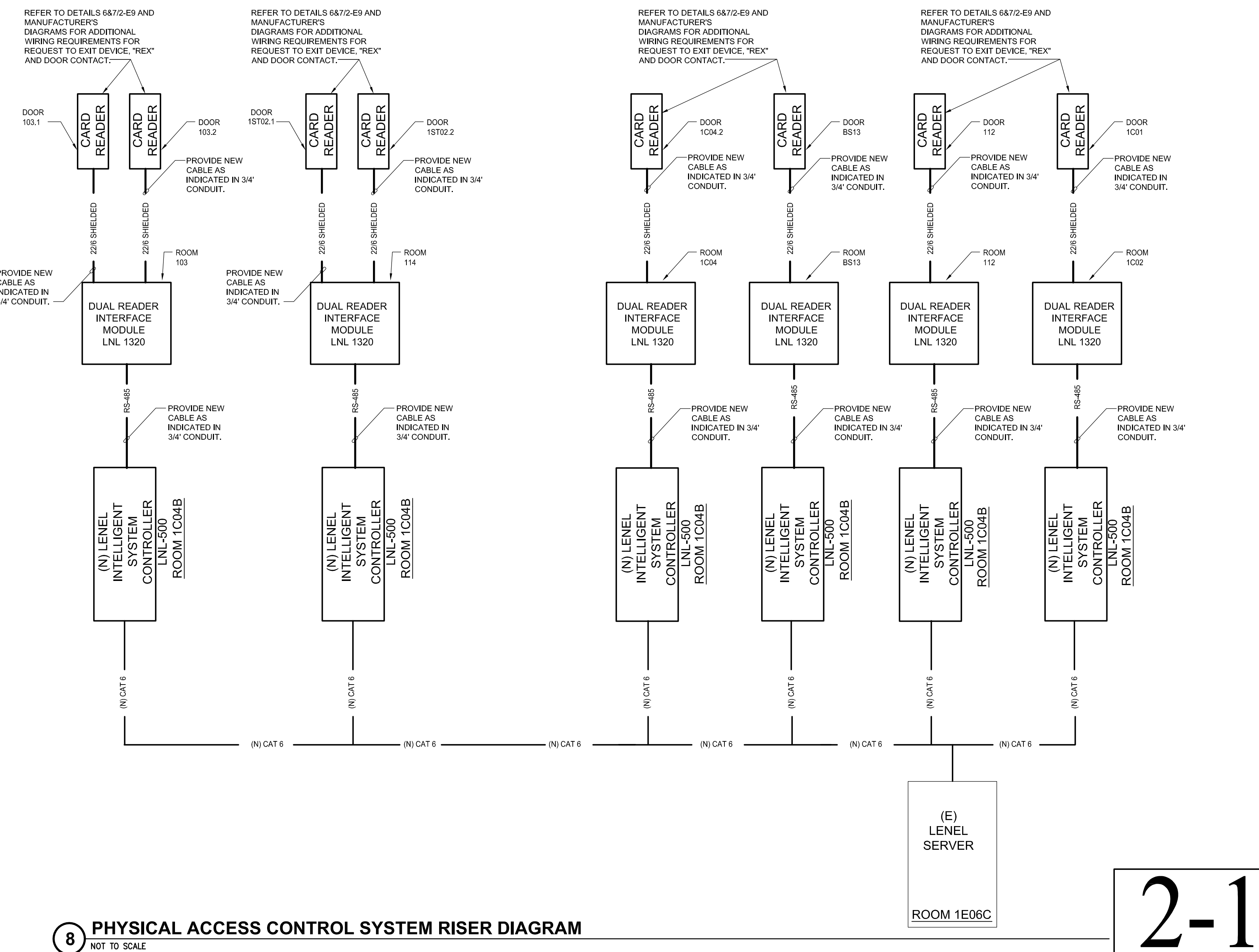
6 ACCESS CONTROL SYSTEM CONNECTION DETAILS
NOT TO SCALE



7 ACCESS CONTROL SYSTEM CONNECTION DETAILS
NOT TO SCALE

- NOTES:
- CONCEAL 3/4" CONDUIT IN WALL AT EXISTING FRAME CONSTRUCTION. SURFACE MOUNT ON INTERIOR FACE (EGRESS SIDE) AT EXISTING MASONRY WALL.
 - 24V LOCK POWER SUPPLY. COORDINATE WITH HARDWARE SUPPLIER.
 - TO LENEL CARD INTERFACE MODULE AT CONTROL PANEL. REFER TO RISER DIAGRAM, DETAIL 8 THIS SHEET.
 - FISH CABLE THROUGH HOLE DRILLED BY HARDWARE INSTALLER.
 - MOUNT REQUEST TO EXIT DEVICE OVER EGRESS SIDE OF DOOR.
 - EXISTING DOORS TO RECEIVE NEW DOOR HARDWARE AS SCHEDULED.
 - PROVIDE 22/6 SHIELDED CABLE FROM LENEL CARD READER INTERFACE MODULE TO POWER SUPPLY AND TO ELECTRIC STRIKE. PROVIDE 4 CONDUCTOR CABLE TO "REX" AND 2 CONDUCTOR CABLE TO DOOR CONTACT STATUS MONITOR DEVICE.
 - PROVIDE RECESSED DOOR CONTACT, GE #1076 SERIES FOR DOOR STATUS MONITOR [PS].

- NOTES:
- CONCEAL 3/4" CONDUIT IN WALL AT EXISTING FRAME CONSTRUCTION. SURFACE MOUNT ON INTERIOR FACE (EGRESS SIDE) AT EXISTING MASONRY WALL.
 - 24V LOCK POWER SUPPLY. COORDINATE WITH HARDWARE SUPPLIER.
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 - PROVIDE RECESSED DOOR CONTACT, GE #1076 SERIES FOR DOOR STATUS MONITOR [PS].



8 PHYSICAL ACCESS CONTROL SYSTEM RISER DIAGRAM
NOT TO SCALE

Revisions

Date

SHIVEHATTERY

ARCHITECTURE+ENGINEERING

2834 Northgate Drive | Iowa City, Iowa 52245
319.354.3040 | fax: 319.354.6921 | shive-hattery.com
Iowa | Illinois | Missouri

Drawing Title

ELECTRICAL SCHEDULE AND DETAILS

Approved: Division Chief

Approved: Service Director

Project Title

RENOVATE AND EXPAND SPACE FOR PATIENT SUPPORT AREAS

Building Number

2

Checked

J.H.

Drawn

DMM

Location

IOWA CITY VA HEALTH CARE SYSTEM
IOWA CITY, IOWA

Date

12-05-2014

CONSTRUCTION DOCUMENTS

Project No.

DVA#636-311

S-H#110240-0

DRAWING NO.

2-E9

Dwg. 13 Of 15

Veterans Administration